



INSTITUT PRO TESTOVÁNÍ A CERTIFIKACI, a. s.

třída Tomáše Bati 299, Louky, 763 02 Zlín, Czech Republic

Testing Laboratory No. 1004

accredited by ČIA according to ČSN EN ISO/IEC 17025:2005



Testing laboratory * Calibration laboratory * Product certification body * Quality management systems certification body
Inspection body * Authorized body * Notified body

Number of pages: 3

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ACCREDITED LABORATORY TEST REPORT ref.No. 412108409-01

Client: RPG Recycling, s.r.o.
IČ: 41186745

Address: Vazová 2143, 688 01 Uherský Brod

Sample: see sample description on page No. 2

Work requested: Determination of overall migration
Determination of primary aromatic amines
Determination of reducing substances
Proof of ammonium
Resistance to saliva and sweat
Determination of extractable heavy metals

Sample received on: September 10, 2018

Report elaborated by: Dipl. Ing. Dagmar Valeriánová

Place and date of issue: Zlín, September 26, 2018



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Dipl. Ing. Jiří Samsonek, Ph.D.
Head of Accredited Testing Laboratory

Note: The results given in this Test Report apply only to the sample tested by our laboratory!

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Sample description and identification:

Table No.I Sample description and identification

ITC's identification number	Sample identification by client	Description of submitted sample
412108409/01	SBR granulate black	

Sampling method used:

The samples were supplied to the laboratory by the client. The laboratory is not responsible for mistakes caused by the wrong way of sampling.

Work requested:

Determination of selected parameters according to the requirements of Acta Hygienica Epidemiologica et Microbiologica (AHM) 3/2000; Table 2 Basic criteria for evaluation of rubber products.

Testing method used:

1. Determination of overall migration according to the ČSN 62 1156, article 12
2. Determination of primary aromatic amines according to the ITC internal regulation A -07 - 69
3. Determination of reducing substances according to the ČSN 62 1156, article 9
4. Proof of ammonium according to the ČSN 62 1156, article 17
5. Resistance to saliva and sweat, according to Annex 1 to Decree No. 84/2001 Coll.
6. Determination of extractable heavy metals (Cr, Cd, Co, Ni, Cu, Pb, As, Hg) by ICP-MS method according to the ITC internal regulation A-10-97

Testing conditions:

- ad 1. The deviation from the standard - a migration area of 100 cm² was determined only approximately because the sample was delivered crushed. The migration ratio 100 cm²/100 ml distilled water, 24 hours, temperature (37±1) °C
- ad 2.- 4. Tests were carried out in the extract: 8 g sample in 100 ml distilled water for 24 hours at (37±2) °C
- ad 5. Resistance to saliva and sweat was performed at a temperature (40±2) °C for 2 hours
- ad 6. Tests were carried out in the extract: 10 g sample in 100 ml of artificial acidic sweat for 4 hours at (37±2)°C.

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Test results:

The test results are given in the following table No. II:

Table No. II - sample 412108409/01 SBR granulate black

Parameter	Unit	Value obtained ¹⁾	Uncertainty ²⁾	Limit value ³⁾	Interpretations
Primary aromatic amines	mg anilinhydrochl./l	< 0,05	-	max. 0,05	Compliance
Overall migration	mg/dm ²	2,0	0,3	max. 10	Compliance
Reducing substances	ml/50 ml	11,0	0,8	max. 30	Compliance
Proof of ammonium	mg NH ₄ ⁺ /kg	< 2	-	max. 2	Compliance
The results of resistance to saliva and sweat, according to Annex 1 to Decree No. 84/2001 Coll.					
Resistance to sweat	-	resistant	-	resistant	Compliance
Resistance to saliva	-	resistant	-	resistant	Compliance
The content of extractable metals in acidic sweat, related to the product weight					
As content	mg/kg	< 0,10	-	max. 0,2	Compliance
Pb content	mg/kg	< 0,20	-	max. 0,2	Compliance
Cd content	mg/kg	< 0,10	-	max. 0,1	Compliance
Hg content	mg/kg	< 0,02	-	max. 0,02	Compliance
Cr content	mg/kg	< 0,10	-	max. 1,0	Compliance
Co content	mg/kg	< 0,10	-	max. 1,0	Compliance
Cu content	mg/kg	1,43	0,15	max. 25,0	Compliance
Ni content	mg/kg	< 0,10	-	max. 1,0	Compliance

Notes to the table No. II:

¹⁾ Symbol „<“ means limit of detection of used analytical method.

²⁾ The uncertainty is expressed as the expanded uncertainty with a coverage factor of $k=2$, with a confidence level of 95%

³⁾ Limit values according to the AHEM 3/2000; Table No. 2 Basic criteria for evaluation of rubber products

Evaluated by:

Dipl. Ing. Dagmar Valeriánová

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Dipl. Ing. Věra Vilímková
Laboratory of analytical chemistry and microbiology

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